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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/700,956

10/31/2003

William D. Holland

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INTELLECTUAL PROPERTY ADMINISTRATION

FORT COLLINS, CO 80527-2400

EXAMINER

RODRIGUEZ, ARMANDO

ART UNIT

PAPER NUMBER

2828

MAIL DATE

DELIVERY MODE

07/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/700,956

Applicant(s)

HOLLAND, WILLIAM D.

Examiner

ARMANDO RODRIGUEZ

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-38 and 40-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-38, 40-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-12, 14-47 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the light beam" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the light beam" in lines 1 and 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the light beam" in lines 3 and 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the light beam" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the light beam" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "the light beam" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the light beam" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 29 recites the limitation "the light beam" in lines 7, 8 and 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 33 recites the limitation "the light beam" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Claim 32 recites the limitation "the light beam" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 33 recites the limitation "the light beam" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 34 recites the limitation "the photons" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 35 recites the limitation "the light beam" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 36 recites the limitation "the light beam" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the light beam" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 38 recites the limitation "the light beam" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 41 recites the limitation "the light beam" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 43 recites the limitation "the light beam" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-10, 14-23, 25, 27-38, 40-43, 45-47, are rejected under 35 U.S.C. 102(b) as being anticipated by Nowak et al (US 6,141,031).

Regarding claims 1, 9, 14, 16, 18, 19, 22, 25, 29-38, 40-43, 45-47,

Figures 2-4 represent various views of the laser scanner (27), including a light source (106), a single light beam (26), a scanning device (120) column 7 lines 1-5 implies a plurality of scan lines, a photoconductor (10), a start-of-scan detector (150) to sample the single light beam (26), which is used to control the light source (106) by scanline controller (151). Figure 4 illustrates a control system (101). Figure 3 illustrates a video data network (103) for modulating the laser (106) [applicant's drive or intensity level].

Regarding claim 2,

Figure 4 illustrates a control system (101).

Regarding claim 3,

Figure 4 illustrates a processing circuit (119) for driving the light source.

Regarding claim 4,

Figure 3 illustrates a video data network (103) for modulating the laser (106) [applicant's drive level].

Regarding claims 6, 17, 20, 23, 27, 44,

Column 7 lines 54-67 suggest and implies sampling the single light beam once and prior to writing on the photoconductor (10).

Regarding claim 7,

Figures 2-4 illustrate a rotating polygon (120).

Regarding claims 8, 21, 28,

Figure 4 illustrates the detector (150) outside the photoconductor (10).

Regarding claims 10, 15,

Figures 2-4 illustrates light source (106) emitting in a single direction.

Claims 9, 12, 22 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada (US 4,862,289).

Regarding claims 9, 12, 22, 24,

Figures 6 and 12 illustrate a laser scanning device including a light source (101) which generates a single light beam, a rotating scanning device (106), a photoconductor (21), where figure 12 illustrates a control circuit including a laser driver (217) for controlling the light source, a photodiode for sampling the single light beam and a comparator (262) for comparing the sampled single light beam with a reference value for controlling the laser driver (217).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 11, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nowak et al (US 6,141,031) in view of Deppe et al (US 5,068,868).

Nowak et al does disclose the light source as a laser diode, but does not explicitly describe the laser diode as being a vertical cavity surface emitting laser (VCSEL).

However, it is notoriously well known in the art for laser diodes such as VCSEL used in laser printers, as disclosed by Deppe et al in column 1 lines 19-25.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ARMANDO RODRIGUEZ whose telephone number is 571-272-1952. The examiner can normally be reached on 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MINSUN HARVEY can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


ARMANDO RODRIGUEZ
Primary Examiner
Art Unit 2828

AR